

REMARKS

I. Status of Claims:

- A. Claims 1-26 are pending in the application.
- B. Claims 24-26 have been withdrawn from consideration at this time.
- C. Claims 1 and 13 have been amended.
- D. New Claims 27 – 31 have been added.
- C. Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph.
- D. Claims 1 – 23 stand rejected under 35 U.S.C. § 102 as anticipated by Meyer, et al., U.S. Patent 5,769,200.
- E. Claims 3, 7-11, 14 and 18-23 stand rejected under 35 U.S.C. § 103(a) as obvious over Meyer, et al. in view of Mercurio, U.S. Patent 5,007,519.
- E. Claims 1-23 stand rejected for obviousness-type double patenting over Bruner, et al., U.S. Patent 5,988,349; Bruner, U.S. Patent 6,155,399; Bruner, et al., U.S. Patent 5,647,470; and Bruner, U.S. Patent Application Serial No. 09/339,011, each in view of Meyer, et al.

II. Response

A. Rejection Under 35 U.S.C. § 112, Second Paragraph

Claim 1 stands rejected under 35 U.S.C. § 112, Second Paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action indicates that it is unclear in Claim 1 what is meant by line c, particularly the phrase “connection said pivotal portion.”

Applicants have amended Claim 1 to clearly indicate that the connection is “with” the pivotal portion referred to. Accordingly, Applicants respectfully

submit that the rejection based on indefiniteness under 35 U.S.C. § 112 has been fully overcome.

B. Rejection Under 35 U.S.C. § 102(b)

Claims 1-23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Meyer, et al., U.S. Patent 5,769,200. Specifically, the Office Action asserts that Meyer, et al. discloses the following:

Claims 1 & 13	Meyer, et al.
A coin separator	10
and rejector body	18, 20, 22, 24 & 28
having one or more downwardly inclined coin races formed therein	Figure 1
said rejector body having an upstream portion and a downstream portion	
said coin races further comprising a first wall and a second wall	
at least a portion of one of said walls in pivotal connection with said rejector body	
one or more sensors located in said upstream portion of said rejector body	A & B
an actuator in mechanical connection with said pivotal portion of said race wall	27
a processor in electrical communication with said sensors and with said actuator	79

Claim 2	
a second sensor located in said downstream portion of said rejector body	A or B
Claims 4-6 and 15-17	
said actuator is a solenoid	27
said solenoid is a latching solenoid	Office Action states that whether or not a latching solenoid, wound cap solenoid or basic solenoid, Meyer, et al. still has substantially the same structure and functions in substantially the same way as Applicants' apparatus.
said solenoid is a wound cap solenoid	See above.

Applicants respectfully submit that Meyer, et al. fails to anticipate the claimed invention. Anticipation requires the presence of each and every claim limitation in a single prior art reference arranged as in the claim. The present invention is directed to a coin separator and rejector apparatus that is composed of two or more segments that are hinged together and having one or more coin races formed between the hinged-together segments. See, e.g., Specification, page 5, lines 18-21. The Office Action appears to draw a distinction between the "coin separator" and the "rejector body." However, as defined in the Specification, the coin separator and rejector body are one in the same and the coin races are formed between the hinged-together segments of the coin separator and rejector body. For example, the Specification states that "[t]he present invention has a coin separator and rejector body (rejector body) having one or more downwardly inclined coin races formed therein." Specification, page 4, lines 18-20. Since the coin race is

formed between the hinged-together section of the rejector body, pivoting open the rejector body also pivots at least a portion of one of the race walls such that a coin within the race will drop out of the rejector body. See, e.g., Specification, page 5, lines 10 – 13.

Meyer, et al. is directed to an anti-stringing device employing pivoting “flaps” to direct coins along various paths within the device and to squeeze the string in, for example, the accept gate. See, e.g., Meyer, et al., Col. 2, lines 15-30. The Meyer, et al. device in Figure 1 shows a device 10 containing parallel plates 12 and 14 and a third plate 16 between which plates are placed a number of “flaps” 18, 20, 22, 24 and 28. These “flaps” are pivotally supported between the parallel plates and direct coin flow depending on the position of the flaps. See, e.g., Meyer, et al., Col. 3, lines 66-67, Col. 4, lines 1-46. The “flaps” of Meyer, et al. are not hinged together to form a “rejector body” as disclosed and claimed in the present invention.

The interior areas of the plates (12, 14 & 16) disclosed in Meyer, et al. define the walls of a coin race; however, there is no disclosure contained in Meyer, et al. that indicates that the parallel plates (12, 14 & 16) are hinged together. The “flaps” therefore operate independently of any manipulation of the race walls as defined by the interior areas of the plates disclosed in Meyer, et al. In fact pivoting of the “flaps” disclosed in Meyer, et al. fails to “open” anything; rather, manipulation of the “flaps” merely alters the direction of the coin flow into alternative coin races. Thus Meyer, et al. fails to disclose a separator and rejector body comprising segments hinged together to form one or more coin races between the hinged sections wherein pivoting open the hinged together sections also pivots at least a portion of one of the races walls. See, e.g., Specification, page 5, lines 18-21. Therefore, Meyer, et al. also fails to disclose “at least a portion of one of said races walls in pivotal connection with said rejector body.” As disclosed and claimed in the present invention the coin races comprise a first and second wall wherein at least a portion of one of the race walls is pivotally connected with the rejector body, i.e., pivoting the rejector body into an open position also causes at least a

portion of one of the race walls to pivot, thereby allowing a coin to fall out of the coin race. See, e.g., Specification, page 3, lines 8 – 25; page 5, lines 6-14; lines 25-27. Since Meyer, et al. fails to disclose or describe at least these limitations, Applicants respectfully submit that Meyer, et al. fails to anticipate the claims of the present invention and the rejection based on §102(b) has been fully overcome and Applicants request the withdrawal of this ground of rejection.

Although the term “rejector body” is fully defined and illustrated in the specification, Applicants have amended the claims to further incorporate defining language from the specification as to the rejector body aspect of the present invention. The remaining claims depend from either independent Claim 1 or independent Claim 13 and are therefore not anticipated based on the same reasons as applied to Claims 1 and 13. Moreover, since the present invention is fully distinguishable over Meyer, et al. based on the claimed features discussed above, any remaining points raised in the § 102(b) rejection have been obviated. Although these points have been obviated, Applicants do not thereby acquiesce to the validity of those points.

C. Rejections Under 35 U.S.C. § 103(a)

The Office action rejects Claims 3, 7-11, 14 and 18-23 under 35 U.S.C. § 103(a) as unpatentable over Meyer, et al. in view of Mercurio, U.S. Patent 5,007,519.

1. Claims 12 & 23

The Office Action asserts that Meyer, et al. fails to expressly disclose a light coin spring detector positioned in the downstream portion of said rejector body as described in Claims 12 & 23. The Office Action indicates that Mercurio discloses such a light spring detector (70) positioned in the downstream portion of said rejector body. The Office Action alleges that both Meyer, et al. and Mercurio are analogous art because they both concern coin handling. The Office Action concludes that at the time of the invention, it would have been obvious to one of ordinary skill in the art to have added a light coin spring detector in the downstream passageway of the rejector body. The Office Action

asserts that the suggestion or motivation to do so would be to provide a further layer of security to insure correctly weighted coins would be allowed to pass through to the coin box, citing Mercurio, abstract, the last seven lines.

Applicants respectfully submit that the Office Action fails to raise a prima facie case of obviousness. Meyer, et al. fails to disclose or describe the present invention wherein at least a portion of one of the race walls is in pivotal connection with the rejector body in that pivoting the rejector body into an open position causes at least a portion of one of the race walls to pivot, thereby allowing a coin to fall out of the coin race. Mercurio is directed to coin blocking levers and plates pivotally mounted in the coin race and responsive to the weight of coins such that underweight coins are preferably routed to a rejection means. See, e.g., Col. 3, lines 48 – 68; Col. 4, lines 1 – 9. Particularly, an underweight coin will not cause the pivotally mounted plate member 86 to deflect, thereby maintaining the coin's direction of travel in a generally horizontal direction to a rejection means (not shown). See Col. 4, lines 4 – 8.

In the present invention, the light coin stop springs are of sufficient tension to stop an underweight coin, while allowing a coin of proper weight to pass. See, Specification, page 11, lines 10-14. A stopped coin, as illustrated in the present invention, will trigger the rejector body to open, thereby allowing the stopped coin to drop from the coin race.

See, Specification, page 11, lines 15-18. In an alternative embodiment, the stopped underweight coin remains in the race until a coin of appropriate weight pushes the underweight coin through, wherein only the coin of proper weight is given credit. See, Specification, page 11, lines 18 – 20. Accordingly, Mercurio fails to suggest stopping an underweight coin in the coin race to either actuate the rejector body to open and allowing the underweight coin to drop from the coin race, or to remain in the coin race until a coin of an appropriate weight pushes it through. Since Meyer, et al. fails to suggest or disclose opening the rejector body to allow a coin to fall from the coin race, and Mercurio fails to disclose stopping an underweight coin in a coin race, there is no teaching,

suggestion or motivation to combine Meyer, et al. and Mercurio to arrive at the present invention. Accordingly, Applicants respectfully submit that the Office Action fails to raise a prima facie case of obviousness and requests withdrawal of the rejection on this ground.

2. Claims 3 & 14

The Office Action indicates that Claims 3 & 14 recite the limitation wherein the actuator is an electric motor. The Office Action contends that an electric motor used as an actuator of the rejector bodies is considered to be a functional equivalent of a solenoid. The Office Action concludes that it would be expedient for one ordinarily skilled in the art to use electric motors or stepper motors to actuate the rejector bodies since they may provide finer control of the rejectors or may take up less space than solenoids.

Claims 3 depends from Claim 1 and Claim 14 depends from Claim 13. Claims 1 and 13 have not been rejected as being obvious over the combination of Meyer, et al. and Mercurio. Moreover, for the reasons discussed above, Meyer, et al. fails to anticipate Claims 1 and 13. Since Claims 1 and 13 are neither anticipated nor obvious in view of the cited references, the Office Action fails to raise a prima facie case of obviousness with respect to dependent Claims 3 and 14 and the rejection with respect to Claims 3 and 14 is therefore obviated. Although it is unnecessary to address the contentions contained in the Office Action regarding electric motors, Applicants do not thereby acquiesce to the points asserted in the Office Action.

3. Claims 7-11 & 18-22

The Office Action states that Claims 7 – 11 and 18-22 contain limitations wherein at least one of the recited sensors is an induction coil, a hall effect sensor, a photoelectric sensor, an LED sensor or an IR (infrared) sensor. The Office Action concludes that each of the recited sensors are considered to be functional equivalents and that it would be expedient for one ordinarily skilled in the art to provide any one or a combination of these sensors in order to sense coins or other items that may be jamming a coin path.

Claims 7- 9 depend from independent Claim 1, and Claims 10-11 depend from Claim 9. Claims 18 – 20 depend from independent Claim 13. Claims 21 and 22 depend from Claim 20. Independent Claims 1 and 13 have not been rejected as being obvious over the combination of Meyer, et al. and Mercurio. Moreover, for the reasons discussed above, Meyer, et al. fails to anticipate Claims 1 and 13. Since Claims 1 and 13 are neither anticipated nor obvious in view of the cited references, the Office Action fails to raise a prima facie case of obviousness with respect to dependent Claims 7-11 and 18-22 and the rejection with respect to Claims 7-11 and 18-22 is therefore obviated. Although it is unnecessary to address the contentions contained in the Office Action regarding various sensors, Applicants do not thereby acquiesce to the points asserted in the Office Action.

D. Rejections Based on Obviousness-Type Double Patenting

1. U.S. Patent 5,988,349 in view of Meyer, et al.

The Office Action rejects Claims 1-23 for obviousness-type double patenting as being unpatentable over Claims 1-22 of U.S. Patent 5,988,349. The Office Action asserts that although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor.

Applicants respectfully submit that the rejection is improper. Applicants understand the rejection to mean that the claims presently pending and Claims 1-22 of the '349 patent conflict because they "both" describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor. This is incorrect. The claims of the '349 patent do not claim subject matter directed to sensors or microprocessor control. To the extent the present Office Action is understood to raise a rejection that the present claims are allegedly obvious in view of the '349 patent's claims combined with the disclosure

contained in Meyer, et al., Applicants respectfully submit that the Office Action fails to raise a prima facie case of obviousness.

Meyer, et al. is directed to an anti-stringing device employing pivoting "flaps" to direct coins along various paths within the device and to squeeze the string in, for example, the accept gate. See, e.g., Meyer, et al., Col. 2, lines 15-30. The Meyer, et al. device in Figure 1 shows a device 10 containing parallel plates 12 and 14 and a third plate 16 between which plates are placed a number of "flaps" 18, 20, 22, 24 and 28 that are pivotally supported between the parallel plates and direct coin flow depending on the position of the flaps. See, e.g., Meyer, et al., Col. 3, lines 66-67, Col. 4, lines 1-46. The "flaps" of Meyer, et al. fail to describe a "rejector body" as disclosed and claimed in the present invention wherein the coin separator and rejector body comprises segments hinged together to form one or more coin races between the hinged sections. See, e.g., Specification, page 5, lines 18-21. Moreover, Meyer, et al. fails to disclose "at least a portion of one of said races walls in pivotal connection with said rejector body" as disclosed and claimed in the present invention. In the present invention the coin races comprise a first and second wall wherein at least a portion of one of the race walls is pivotally connected with the rejector body in that pivoting the rejector body into an open position causes at least a portion of one of the race walls to pivot, thereby allowing a coin to fall out of the coin race. See, e.g., Specification, page 3, lines 8 - 25; page 5, lines 6-14; lines 25-27. The Office Action fails to identify any motivation or suggestion contained in Meyer, et al. directed to anti-stringing techniques by manipulation of "flaps" situated within coin races that would lead one of ordinary skill in the art to adapt the device claimed in the '349 patent to arrive at the presently claimed invention. Since the Office Action fails to raise a prima facie case of obviousness, Applicants respectfully request that this ground for rejection be withdrawn.

2. U.S. Patent 6,155,399 in view of Meyer, et al.

Claims 1-23 stand rejected for obviousness-type double patenting over Claims 1-25 of U.S. Patent 6,155,399 in view of Meyer, et al. The Office Action asserts that although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor.

Applicants respectfully submit that the rejection is improper. Applicants understand the rejection to mean that the claims presently pending and Claims 1-25 of the '399 patent "both" describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor. This is incorrect. The claims of the '399 patent do not claim subject matter directed to sensors or microprocessor control. To the extent the present Office Action is understood to raise a rejection that the present claims are allegedly obvious in view of the '399 patent's claims combined with the disclosure contained in Meyer, et al., Applicants respectfully submit that the Office Action fails to raise a prima facie case of obviousness for the same reasons set forth with respect to the obviousness-type double patenting rejection raised with respect to U.S. Patent 5,988,349 set forth above and respectfully request that this ground of rejection be withdrawn.

3. U.S. Patent 5,647,470 in view of Meyer, et al.

Claims 1-23 stand rejected for obviousness-type double patenting over Claim 1 of U.S. Patent 5,647,470 in view of Meyer, et al. The Office Action asserts that although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor.

Applicants respectfully submit that the rejection is improper. Applicants understand the rejection to mean that the claims presently pending and Claim 1 of the '470 patent "both" describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor. This is incorrect. Claim 1 of the '470 patent does not claim subject matter directed to sensors or microprocessor control. To the extent the present Office Action is understood to raise a rejection that the present claims are allegedly obvious in view of the '470 patent's claims combined with the disclosure contained in Meyer, et al., Applicants respectfully submit that the Office Action fails to raise a prima facie case of obviousness for the same reasons set forth above with respect to the obviousness-type double patenting rejection raised with respect to U.S. Patent 5,988,349 and Applicants respectfully request withdrawal of this ground of rejection.

4. Co-Pending Application No. 09/339,011 in view of Meyer, et al.

Claims 1-23 stand rejected for obviousness-type double patenting over the claims of application serial no. 09/339,011 in view of Meyer, et al. The Office Action asserts that although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor.

Application Serial No. 09/339,011 has been abandoned and therefore this ground of rejection has been obviated on that basis. However, Applicants respectfully submit that the rejection is otherwise improper. Applicants understand the rejection to mean that the claims presently pending and the claims of the '011 application "both" describe a coin separator and rejector body having one or more sensors located upstream and downstream of the rejector body, the system controlled by a microprocessor. This is incorrect. The claims of the '011 application did not claim subject matter directed to

sensors or microprocessor control. To the extent the present Office Action is understood to raise a rejection that the present claims are allegedly obvious in view of the '349 patent's claims combined with the disclosure contained in Meyer, et al., Applicants respectfully submit that the Office Action fails to raise a prima facie case of obviousness for the same reasons set forth above with respect to the obviousness-type double patenting rejection raised with respect to U.S. Patent 5,988,349.

CONCLUSION

Applicants respectfully submit that the above amendments and remarks fully respond to the rejection made in the Office Action mailed June 24, 2002. Applicants submit that the claims are in proper form and condition for allowance. If the Examiner believes a telephone interview would further prosecution of this case, the Examiner is invited to call the undersigned at (650) 463-8100.

It is believed that a sufficient extension fee is included; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason, the Assistant Commissioner is authorized to deduct said fees from Howrey Simon Arnold & White Deposit Account No. **01-2508**, referencing client/matter number **10356.0035.NPUS00**.

Respectfully submitted,


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Version with Markings to Show Changes Made

1. A coin separator and rejector apparatus, comprising:
 - (a) a coin separator and rejector body having two or more segments hinged together in pivotal connection, said hinged segments defining one or more downwardly inclined coin races formed therein~~between said hinged segments~~, said rejector body having an upstream portion and a downstream portion, and said coin races further comprising a first wall and a second wall, at least a portion of one of said walls in pivotal connection with at least one of said hinged segments of said coin separator and rejector body;
 - (b) one or more sensors located in said upstream portion of said coin separator and rejector body;
 - (c) an actuator in mechanical connection with said pivotal portion of said race wall; and
 - (d) a processor in electrical communication with said sensors and with said actuator.

13. A coin separator and rejector apparatus, comprising:
 - (a) a coin separator and rejector body having two or more segments hinged together in pivotal connection, said hinged segments defining one or more downwardly inclined coin races formed therein~~between said hinged segments~~, said rejector body having an upstream portion and downstream portion, and said coin races further comprising a first wall and a second wall, at least a portion of one of said walls in pivotal connection with at least one of said hinged segments of said coin separator and rejector body;
 - (b) one or more sensors located in said upstream portion of said coin separator and rejector body;

- (c) one or more sensors located in said downstream portion of said coin separator and rejector body;
- (d) an actuator in mechanical connection said pivotal portion of said race wall; and
- (e) a processor in electrical communication with said sensors and with said actuator.